

Past Challenges and Emerging Advances in Statistics of Tourism Labour and Employment

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1. Introduction

Tourism activities are generally labour intensive. For these reasons governments, industry organizations and tourism advocacy groups are keen on speaking of the contribution of tourism in generating jobs and providing people with access to income. In response tourism employment and labour market statistics are collected, compiled, estimated and reported by a wide range of organizations ranging from local destination marketing organizations, industry councils, and national statistical organizations to international organizations with broad mandates regarding data collection and reporting such as the International Labour Organization and the World Tourism Organization.

In the aftermath of the global economic crisis of 2008 and the slowly emerging recovery from the subsequent recession, interest in the employment aspects of tourism has been particularly intense. Nevertheless, employment and labour statistics related to tourism, have still received relatively little methodological attention and, in the words of a spokesperson of the International Labour Organization (ILO), they generally remain “inadequately measured and insufficiently studied”¹.

Recently, updated international standards for tourism statistics, as well as a new international joint agreement between the World Tourism Organization and the International Labour Organization, the *ILO/UNWTO Joint Project on Employment in the Tourism Industries* (Chernyshev, 2009) all highlight tourism employment statistics as a new priority for statistical improvement of both coverage and data quality.

At a national level, the early pioneering work of a few countries including Australia, Austria, Canada, France, New Zealand, Portugal and Spain have led in developing sets of statistical tools for measuring employment in tourism industries. In addition, of late, Brazil has made a number of recent advances, including developing specific measures of informal work and the characteristics of informal workers.

This paper reviews previous challenges and solutions, emerging approaches and further evolving lines of research and development of statistical standards, statistical instruments and information sources relating to tourism employment, labour characteristics and related issues.

¹ Chernyshev, Igor, *ILO/UNWTO Joint Project on Employment in the Tourism Industries: Statistics Component*, Keynote, Session III, Employment in Tourism Industries Measurement Issues and Case Studies, Fifth UNWTO Global Conference on Tourism Statistics, Tourism: An Engine for Employment Creation, Bali, Indonesia, 30 March – 2 April, 2009.

2. Past Challenges in Measuring Tourism Employment and Labour Characteristics

Since by definition, tourism is a special form of demand (both personal and business consumption), before the conception and development of the Tourism Satellite Account (TSA) in the late 1980's and the early 1990's it was impossible to identify either individual tourism economic activities/industries or their amalgam as a synthetic tourism sector. As a result, it was not possible at that time to conceive of, or estimate, an aggregate measure of employment in tourism industries such as the total number of jobs in tourism industries or the characteristics of persons working in tourism jobs in ways that were comparable with other industries or the overall economy.

Another alternative, used by many analysts, both past and present,² involved treating key traditional industry aggregations, such as the hospitality sector covering the accommodations and food and beverages industry groups, as representative proxies for the supply-side of tourism economic activity.³ This approach has been used to produce strong estimates of jobs and hours of work and the characteristics of persons working within these particular selected industry groups. But, the scope of the coverage of economic activity is obviously very limited; and, in other cases such as food and beverage services, they overstates the tourism share of the total turnover; thus associated findings can't be generalized without incurring considerable inferential risk.

Until recently, the majority of the available measures of tourism phenomena dealt primarily with various aspects of tourism consumer demand (both personal and business) – the volumes of various categories of visitors, the money they spent, and the goods and services they purchased. Measures of the supply-side of tourism production were, at best, dispersed, partial and fragmented. Even today, some twenty years later, less than half of the countries in the world have developed the necessary statistical instruments to generate a comprehensive supply-side view of tourism with associated information regarding total overall employment in characteristic tourism activities/industries in terms of total jobs, hours of work, or labour compensation.

3. The Significance of the Tourism Satellite Account

As described previously by Meis (2002) in a Canadian case study⁴ Canada's interest in the concept of a *tourism satellite account (TSA)* dates to 1985-86 when a *National Task Force on Tourism Data* proposed a tourism specific application of a broader French concept of "satellite accounts". The Canadian vision of the TSA was of a new statistical instrument designed to provide a comprehensive overview of tourism economic activity in monetary terms (both current and constant dollars) that would establish the relative importance of identified component tourism activities to overall tourism activity and to other activities in the national economy in these monetary terms. From the very beginning tourism employment and labour analysis were an essential part of the original identified industry applications for the information to be derived from the new instrument which included aiding decisions relating to "manpower development, education and training; planning and awareness; marketing; investment; as well as operations and management.

When the first Tourism Satellite Account was released in Canada in 1994 (for reference year 1988), it revealed for the first time, among other important new insights regarding the significance of tourism in the national economy, that tourism was indeed a significant creator of employment in the Canadian economy. It showed conclusively that tourism is a very labour-intense sector, generating a disproportionately large five per cent share of total employment in the business sector of the Canadian economy (compared with 2.5

² Many analysts still do in cases where comparative summaries are required across national economies with varying tourism-specific statistical infrastructure.

³ This approach assumed that both industries had high and equivalent levels of tourism use of their produced services.

percent of total value-added) amounting to over 467,000 jobs⁵ (most recently updated to 3.7% of total employment and 610,00 jobs in reference year 2004). The biggest job creators in the Canadian tourism sector at the time were accommodation at 27.6% of the total, food and beverage services at 26.5% followed by transportation at 16.5% and recreation and entertainment at 5.4 per cent.

As revealing and useful as this new employment information was at the time, it was immediately noted that the human resource dimension of the CTSA was, and still is, very limited as it focused mainly on monetary aggregates associated with tourism supply and demand and the measurement of GDP. Thus, only the number of jobs and labour income directly attributable to tourism can be found in the CTSA, and even then, little or no information is provided on the attributes of the jobs, the employers, and the employees working in those jobs.

4. TSA Recommended Methodological Framework

Canada's initial vision, concept and plans for the proposed development of the TSA were first presented to the World Tourism Organization (WTO) and the international statistical community at the first International Conference on Travel and Tourism Statistics held in Ottawa (Canada) in June 1991. Included in the original Canadian TSA vision was a linked and integrated data module on non-monetary aspects of tourism employment and labour force information envisaged by Lapierre and Wells (1991) as part of a comprehensive multi-modular and multi-layered integrated information system describing all significant statistical aspects of tourism.

The Canadian TSA concept was subsequently adopted by WTO and the United Nations Statistics Commission in the 1993 *International Recommendations on Tourism Statistics* as a starting point for the future work in developing tourism satellite accounts as a new statistical approach to measuring the full scope of the economic aspects of tourism in national economies. Eventually, in 2000, an additional new joint UN/WTO/OECD/EC standard *The Tourism Satellite Account: Recommended Methodological Framework* (2000) was approved by the United Nations Statistics Commission and released jointly by the partners in 2001.

However, the final version of the TSA that emerged in the TSA:RMF (2000) focused primarily on the core account, and key monetary aspects of the relationship of tourism with the overall economy. As presented in the TSA:RMF, the TSA consists of ten tables of predominantly economic data which measure domestic and international consumption (in cash and in kind); value added of the tourism industries; tourism value added; and, tourism GDP. Only one out of the ten tables (Table 7) covers *employment* in the tourism industries; and that, only in terms of number of jobs; hours of work; and full-time equivalent jobs by status in employment, all broken out by twelve characteristic industry/activity groups.

In retrospect, undoubtedly, the most important benefits of the release and promulgation of the TSA:RMF (2000) were the identification and specification of a methodological approach for measuring non-traditional cross-cutting sectors of economic activity, and secondly, and perhaps most importantly, the endorsement and adoption of a common concept and definition of the tourism sector as a synthetic collection of characteristic economic activities/industries that included passenger transportation, accommodations, food and beverage services, travel services and recreation and entertainment characteristic activity/industry groups. This "official" recognition of the tourism sector as a legitimate entity that could be measured in its many facets and aspects, including those of employment and labour, opened up a multitude of further analytical

⁵ Tourism employment as measured in the CTSA includes all jobs: full-time, part-time; full-year and part-year jobs in tourism and non-tourism industries held by employees, self-employed and unpaid family workers. However, tourism employment, as measured in the CTSA, is limited to only those jobs that are directly attributable to tourism demand. Thus jobs, generated in agriculture to support production in the food and beverage services industry for visitors (i.e., indirect employment) are not included.

possibilities.

5. Updating and Extending the International Recommendations on Tourism Statistics (IRTS)

The updated 2008 TSA:RMF also mentions the addition of a new *Chapter 7 "Employment in the Tourism Industries"*, included in a revised and updated IRTS (2008) with the objective of helping countries to measure quantitative and qualitative dimensions of employment in order to better understand its impact on the tourism economy in a given country and complement the limited employment data produced for Table 7 of the TSA. For the first time, the new chapter describes concepts, definitions, basic categories and indicators of employment in the tourism industries from "a general statistical rather than a specific national accounts perspective".

Further work in progress to promote and extend this international standard for tourism statistics relates to: 1) development of an implementation programme; 2) development of compilation guidelines; and 3) development of a related database. The *implementation programme* to be developed will consist of supporting training materials, workshops and technical assistance programmes to assist countries in basic data collection and compilation of the data considered in the recommendation.

6. Meeting the Challenge of Producing Data on Persons Employed in Tourism

One of the objectives of the addition of the new chapter⁶ is to produce a comprehensive set of data on persons employed in the tourism industries. In other words, the idea is to meet the challenge of moving from the SNA-TSA approach based on the economic side of employment (through the supplied and consumed tourism products) to its human or individual significance, i.e., to collect data not only on the number of full-equivalent jobs but also on the number of *persons* employed in tourism-characteristic jobs; the working conditions of persons engaged in tourism-characteristic activities - their hours of work; their wages and salaries; their occupation, education; their employment status in terms of whether they are salaried or self-employed workers, etc.

It is with the above in mind that the ILO and the UNWTO are currently implementing a Joint Project on the *Measurement of Employment and Decent Work in the Tourism Industries*. Canada has agreed to assist them by developing a comprehensive procedure for the production of data sets on persons employed in the tourism industries to be based on the numerous tables currently produced on this subject by Statistics Canada and the Canadian Tourism Human Resource Council (CTHRC). Brazil and Indonesia are also piloting other aspects of the new international standards developments.

7. Canada – Estimating Labour and Work Characteristics of Employment in Tourism Industries

To compensate for the limitations in tourism employment and labour data provided by the CTSA, statistical and industry stakeholders have worked together to address the information gap by developing, and sustaining a Canadian tourism employment module entitled the *The Canadian Human Resource Module (HRM) of the Tourism Satellite Account*. The HRM is designed to provide more extensive statistics on three main human resource dimensions of tourism for the tourism sector, as a whole, and for each characteristic tourism activity/industry group: jobs, hours of work and income earnings (detailed by labour income, annual wages/salaries, weekly wages/salaries, hourly wages/salaries).

Four main sources of data underlie the compilation of the Human Resource Module estimates. They include: (1) Labour productivity data in the System of National Accounts, (2) Census data, (3) Labour Force Survey (LFS) data, and (4) Survey of Employment Payroll and Hours (SEPH) data. In particular, the HRM carries information on the number of employee and self-employment jobs, full-time equivalent employment, total hours worked and labour income, gross wages and salaries and supplementary labour income, by

industry. Within the HRM, these are compiled from a total industry perspective first, that is to say, regardless of the source of demand, tourism or non-tourism.

The main tourism employment statistics provided by HRM -- jobs, hours and compensation—are also available by industry and occupational group, as well as the gender, work status, age group, and immigrant status of tourism related workers. The latest update for reference year 2009 also includes time series estimates from 1997 up to and including 2009 for Canada over a 13 year period.. The regular benchmark data updates are now very timely with annual releases published six months after the close of the reference period.

A few results of the HRM illustrate the types of analysis it can support starting first with newly revealed information on occupations in tourism industries. In Canada, five occupation groups dominate employee jobs in tourism industries, accounting for 48.2% of all employee jobs: food-counter attendants, kitchen helpers and related occupations with 245,000 jobs; food and beverage servers with 191,000 jobs; cooks with 145,000 job; restaurant and food service managers with 82,000 jobs; and cashiers with 59,000 jobs. Furthermore, these occupations are concentrated mainly in one tourism industry group – food and beverage services. In fact, of the jobs in the five top occupations, 93% are concentrated in the food and beverage services industries.⁷

The HRM also provides details concerning three demographic characteristics of employees, gender, age group, and immigrant status. For example, the results one of these variables, employee, age group includes the following information and insights. Youth aged 15 to 24 are a major source of labour for the tourism industries in Canada. In 2009, they held 594,000 employee jobs, accounting for 4 out of ten employee jobs in tourism. Three out of four young workers were employed in the food and beverage services industries. Their most common occupation was food counter attendants, kitchen helpers and related occupations.

To compensate for the still limited content coverage of the HRM As noted earlier, the Canadian Tourism Human Resource Council (CTHRC) also produces a complementary report *Who Works for You? A Demographic Profile of Tourism Sector Employment* that uses the concepts, definitions and classifications from the HRM of tourism industries and tourism occupations to produce additional customized tables derived from census data gathered every five years. In April 2010, CTHRC released the latest updated report describing the data in these tabulations from the 2006 Canadian Census profiling additional detailed employee characteristics of for each of the industry groups of the Canadian tourism sector as well as detailed demographic profiles of the tourism labour force by geography and industry group for 38 tourism specific occupations. Once again, results for one labour segment *disabled persons*⁸ *employed in tourism*, an equity group of particular policy interest, are illustrative of the information detail provided. According to the 2006 census, the labour segment of disabled persons employed in tourism industries includes about one in ten tourism workers (11%), slightly less than their the share in the Canadian work force overall (12%). Furthermore, the Canadian transportation industry group had the largest proportion of workers with a disability.

Although these results are less timely than the other information sources cited previously; no other data source can provide as much detailed information to accurately reveal what percentage of disabled persons are working in tourism by industry group, age group, particular region and major local labour market. Furthermore, while the absolute numbers may change from one census benchmark date to the next census year, most of the percentage shares do not generally shift significantly between census years.

⁷ Ibid.

⁸ Refers to persons identifying difficulties with daily activities and the reduction in the amount or kind of activities due to conditions or health problems that have lasted or are expected to last 6 months or more.

8. Brazil – Data on Informal Employment in Tourism Industries ⁹

The System of Tourism Statistics of Brazil is based on two initiatives which aim at measuring the socio-economic importance of tourism. One of these initiatives is developed by the Brazilian Institute of Geography and Statistics (IBGE) and the other by the Institute of Applied Economic Research (Instituto de Pesquisa Econômica Aplicada – IPEA). These are complementary initiatives which tackle the same reality from different points of view, but following similar parameters, especially with regard to the recommendations of the UNWTO on the outline of activities to be considered in the construction of the Tourism Satellite Account (TSA).

The IBGE develops the Tourism Satellite Account of Brazil, which is in the process of elaboration, and covers macroeconomic aggregates for tourism characteristic activities of tourism (CATs) such as value added, number of jobs, total paid income and consumption of tourism characteristic products by families. This is a collection of structural information on an annual basis ¹⁰

The IPEA, in partnership with the Ministry of Tourism, develops the Integrated Information System on the Labour Market of the Tourism Sector (Sistema Integrado de Informações sobre o Mercado de Trabalho no Setor Turismo – SIMT), which provides basic statistics and indicators on the importance and the evolution of employment in tourism activities, in support of public policies for the sector.

The basic SIMT statistics are estimates of formal and informal employment for seven groups of CATs (accommodation, food services, transport, auxiliary transport activities, travel agencies, renting of transport equipment, culture, and recreational activities) for Brazil, regions and states, and also data on the major demographic attributes (gender, age, education) and occupational attributes of labour in CATs (income, size of establishment, length of service, employment).

These estimates are produced from the primary data derived from the following four sources: a) Annual Report of Social Information (Relatório Anual de Informações Sociais – RAIS); b) General Register of Employed and Unemployed (Cadastro Geral de Empregados e Desempregados – CAGED); c) National Household Sample Survey (Pesquisa Nacional por Amostragem por Domicílio – PNAD, from IBGE; d) A field survey, at national level, conducted by IPEA every five years, in establishments operating in the seven groups of CATs. The first two sources are administrative records of the Ministry of Labour and Employment.

Estimates of formal employment in CATs result from the combination of estimates of formal employment by CAT (information provided by the RAIS), with weights of tourism demand, by CAT, built on the IPEA survey. While, similarly, estimates of informal employment in CATs result from the combination of estimates of the formally employed by CAT (information provided by the RAIS), with weights expressing the relationship between formal and informal employment, by CAT (information provided by the PNAD). In addition, a first approximation of cyclical trends in formal employment in the sector is given by the provisional monthly estimates prepared on the basis of data from the CAGED, with a time lag of forty days. A detailed description of the methodology and procedures used in producing the estimates of the SIMT Integrated Information System, main tables and studies on the subject are contained in the web page of IPEA: www.ipea.gov.br, in “Tourism Employment” (Emprego no Turismo).

In 2009, the results of the SIMT estimates on employment in tourism activities became part of the set of indicators used by the Ministry of Tourism in order to monitor the National Plan for Tourism. By way of example, following are a few selected results from a table of the SIMT, the contents of which are relevant to

⁹ Source: ILO/UNWTO *Technical guide on best practices of measuring employment in the tourism industries*. Geneva and Madrid 2011 (Mimeographed).

¹⁰ See also the publication “Tourism Economics: a Macroeconomic Perspective 2000-2005” on the IBGE website, www.ibge.gov.br/english/estatistica/economia/industria

those responsible for public policies related to tourism, private sector leaders and researchers in the area. In December 2008, persons employed in tourism activities in CATs accounted for 2,8% of total employment in the Brazilian economy; this participation differs between the Brazilian states; in Rio Grande do Norte, it reaches 4,4%, and in São Paulo, 2,1%. Out of the total of 2,036,644 persons employed in the CATs in December 2008, 43% are formally employed and 57% are informally employed.

8. Summary

Until recently, employment and labour statistics related to tourism have received relatively little methodological attention and have remained adequately measured and insufficiently studied. This paper reviews previous impediments and recent solutions to closing the gap. Emerging international statistical recommendations, standards and guidelines are one part of the solution. Leading edge national development and implementation initiatives, such as those described here for Canada and Brazil are the second part of the emerging solution. If the current methodological and substantive attention to this longstanding measurement weakness is sustained, hopefully, future tourism statisticians and policy makers will not have to continue to struggle without reliable information on the social and economic aspects of tourism employment and labour.

REFERENCES

- Bisaillon, Monique, (2010). *Human Resource Module of the Tourism satellite Account, 2009*. Statistics Canada, catalogue no. 13-604-MPB -- no.66. Ottawa: Statistics Canada.
- Canadian Tourism Human Resource Council, (2010). *Who's Working for You? A Demographic Profile of Tourism Sector Employees*. Ottawa: Canadian Tourism Human Resource Council.
- Chernyshev, Igor, (2009). ILO/UNWTO *Joint Project on Employment in the Tourism Industries: Statistics Component*, Keynote, Session III, Employment in Tourism Industries Measurement Issues and Case Studies, Fifth UNWTO Global Conference on Tourism Statistics, Tourism: An Engine for Employment Creation, Bali, Indonesia, 30 March – 2 April, 2009.
- Conference Board of Canada, (2010). *The Future of Canada's Tourism Sector: Economic Recession only a Temporary Reprieve from Labour Shortages*. Ottawa: Canadian Tourism Human Resource Council.
- Instituto Brasileiro de Geografia e Estatística, (2006). *Tourism Economics: a Macroeconomic Perspective 2000-2005*. www.ibge.gov.br/english/estatistica/economia/industria
- International Labour Office and World Tourism Organization, (2008). *Sources and Methods, Labour Statistics: Employment in the Tourism Industries (Special edition)*. Geneva and Madrid: International Labour Office and World Tourism Organization.
- ____ (2011). *Technical guide on best practices of measuring employment in the tourism industries*. Geneva and Madrid (Mimeographed).
- Lapierre, J. and Wells, S, (1991). *A Proposal for a Satellite Account and Information System for Tourism*. Presented at the WTO International Conference on Travel and Tourism. Ottawa, June.
- ____ and Hayes, D. (1994). *The Tourism Satellite Account*. Income and Expenditure Accounts Technical Series no. 31, Ottawa: Statistics Canada.
- Meis, Scott (2002). *A Case Study of the Canadian Experience with the Tourism Satellite Account*. Ottawa: Canadian Tourism Commission.
- Organization for Economic Cooperation and Development, (2000), *Measuring the Role of Tourism in OECD Economies: The OECD Manual on Tourism Satellite Accounts and Employment*. Paris.
- Statistics Canada (2010). *National Tourism Indicators, Second Quarter 2010*. Ottawa: Statistics Canada.
- ____ (1989). *National Task Force on Tourism Data Final Report*. Ottawa: Education, Culture and Tourism Division, Statistics Canada.

UNWTO/UN Statistics Division (2008). *International Recommendations on Tourism Statistics, 2008*. Madrid and New York: World Tourism Organization.

_____ (2008). *Tourism Satellite Account: Recommended Methodological Framework, 2008*. Madrid and New York: World Tourism Organization.